RINGKASAN

Salah satu Genus dari jamur Basidiomycetes yaitu *Mycena*, telah diteliti senyawa metabolit sekunder yang dihasilkan. *Mycena pelianthina* menghasilkan pelianthinarubins A, pelianthinarubins B, muskarin, dan epimuskarin dari golongan alkaloid. Senyawa metabolit sekunder yang dihasilkan dan pertumbuhan miselium bergantung kepada medium pertumbuhan dan waktu inkubasi. Medium yang banyak digunakan untuk menumbuhkan miselium dan produksi metabolit jamur yaitu medium cair. Tujuan penelitian ini adalah untuk mengetahui pengaruh medium pertumbuhan dan waktu inkubasi terhadap bobot miselium *M. pelianthina* serta mengetahui golongan senyawa metabolit sekunder yang dihasilkan oleh *M. pelianthina.*

Penelitian ini dilakukan secara eksperimental menggunakan Rancangan Acak Lengkap Faktorial (RAL Faktorial), dengan 12 perlakuan dan 3 kali ulangan. Faktor pertama meliputi jenis medium (M), yaitu *Mushroom Complete Medium* (MCM), *Potato Dextrose Yeast Broth* (PDYB), dan *Yeast Malt Extract Medium* (YM). Faktor ke dua meliputi waktu inkubasi (W), yaitu 15, 20, 25, dan 30 hari. Variabel bebas dalam penelitian ini yaitu medium pertumbuhan dan waktu inkubasi yang digunakan, sedangkan variabel terikatnya adalah pertumbuhan dan golongan metabolit sekunder yang dihasilkan. Parameter utama yang diamati yaitu bobot kering miselium dan golongan metabolit sekunder, sedangkan parameter pendukungnya adalah pH awal dan pH akhir. Data bobot kering miselium yang diperoleh dianalisis menggunakan analisis ragam (ANOVA), perlakuan berpengaruh nyata kemudian dilanjutkan dengan uji Duncan pada tingkat kepercayaan 95%.

Hasil penelitian menunjukkan bahwa pertumbuhan miselium *M. pelianthina* paling baik dihasilkan pada medium PDYB dengan waktu inkubasi 20 hari dengan rata-rata bobot kering miselium 0,92 g/100 mL. *M. pelianthina* mengandung senyawa metabolit sekunder golongan alkaloid, terpenoid, dan flavonoid.

Kata kunci: bobot kering miselium, medium, metabolit sekunder, *Mycena pelianthina*, waktu inkubasi

SUMMARY

Genus *Mycena* is one of Basidiomycetes fungi, has been investigated for its secondary metabolites. *Mycena pelianthina* produces pelianthinarubins A, pelianthinarubins B, muscarin, and epimuscarin from alkaloids group. Mycelium growth and production of secondary metabolite depend on growth medium and incubation time. Liquid medium is widely used to grow mycelium and production of fungal metabolites. The purpose of this research were to determine the effect of growth medium and incubation time on the weight of mycelium *M. pelianthina* and to know the group of secondary metabolite compounds produced by *M. pelianthina*.

This research was done experimentally used Completely Randomized Design with Factorial pattern, with 12 treatments and 3 replications. The first factor includes medium type (M), which is Mushroom Complete Medium (MCM), Potato Dextrose Yeast Broth (PDYB), and Yeast Malt Extract Medium (YM). The second factor includes the incubation time (T), which is 15, 20, 25, and 30 days. The independent variables in this research was growth medium and incubation time, while the dependent variable were the growth and the production of secondary metabolite group. The main parameters that observed were the dry weight of mycelium and the secondary metabolite group, while the supporting parameters were initial pH and final pH. The dried weight data of mycelium obtained was analyzed using ANOVA, the treatment had a significant effect then continued with Duncan test at a 95% confidence level.

The results showed that the best growth of *M. pelianthina* mycelium was produced on PDYB medium at incubation time of 20 days with an average mycelium dry weight of 0,92 g/100 mL. *M. pelianthina* contains secondary metabolite compounds group of alkaloids, terpenoids, and flavonoids.

Key words : dry weight of mycelium, incubation time, medium, *Mycena pelianthina*, secondary metabolite